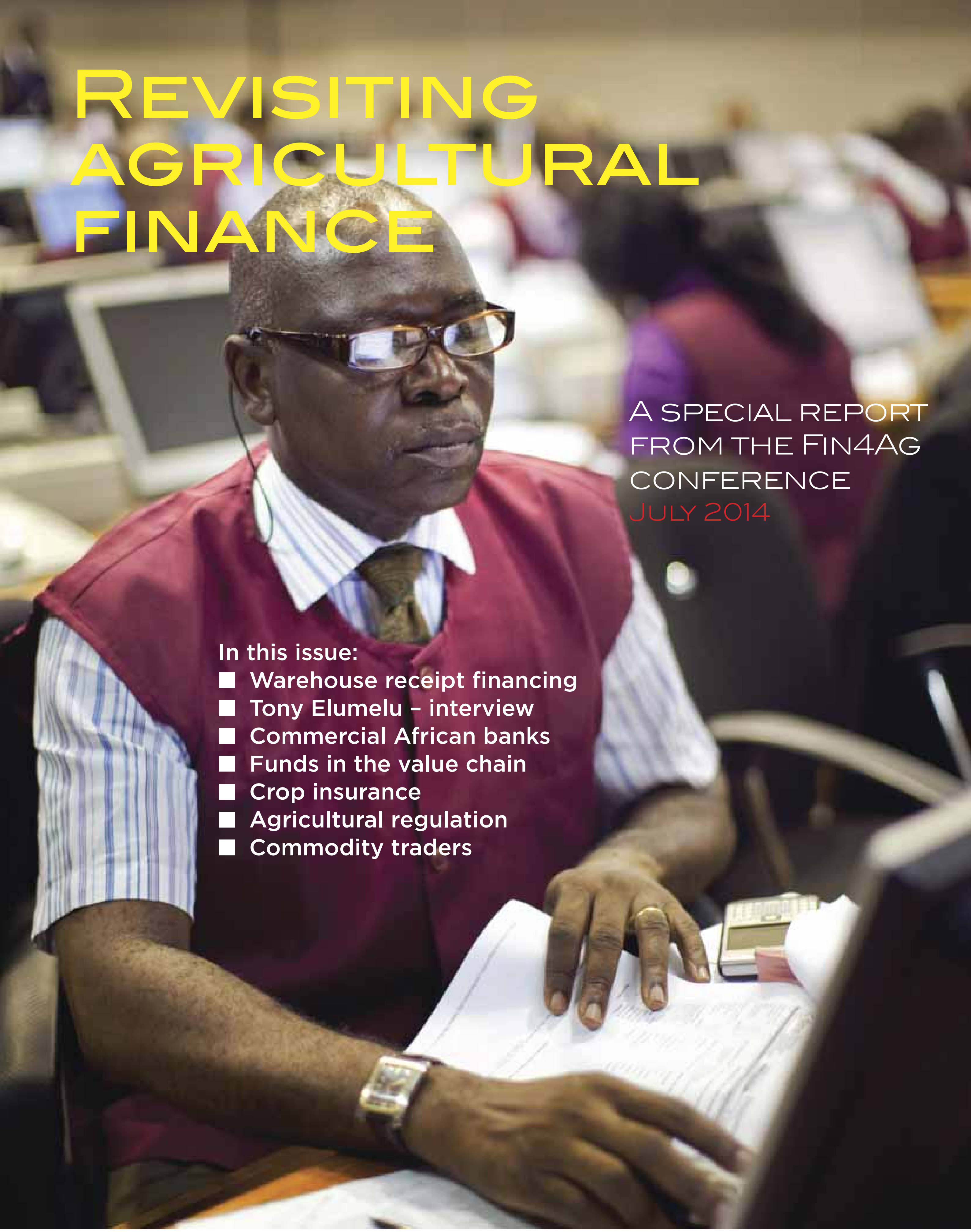

Revisiting Agricultural Finance

A special report from the Fin4Ag conference

July 2014

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Trade & Export Finance

CTA

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Jonathan Bell
Editor-in-chief
jonathan.bell@txfmedia.com

Helen Castell
Special report writer
helen.castell@txfmedia.com

Dan Sheriff
Managing director
dan.sheriff@txfmedia.com

Dominik Kloiber
Commercial director
dominik.kloiber@txfmedia.com

Max Carter
Product development director
max.carter@txfmedia.com

James Petras
Chief technology officer
james.petras@txfmedia.com

Katy Rose
Head of marketing
katy.rose@txfmedia.com

Hesham Zakai
Content manager
hesham.zakai@txfmedia.com

Mailing address:
TXF
Canterbury Court
Kennington Park
1-3 Brixton Road
London
SW9 6DE.
Tel: +44 (0) 20 3735 5180

Registered office:
TXF Limited
7-10 Chandos Street
London
W1G 9DQ.

Registered in England & Wales.
Registered No: 08421624

Foreword

By Jonathan Bell, editor-in-chief, TXF

Jonathan Bell, editor-in-chief at TXF

As media partner with CTA, TXF is proud to be involved in producing this special report on agricultural financing for the landmark Fin4Ag conference in Nairobi. The report is entitled *'Revisiting Agricultural Finance'*, because that is exactly what is required to first ensure finance is available for producers, traders and others involved in the agri-value chain, and second that the financial environment is conducive for producers' interests, providing them with the financial services they need and at an affordable cost.

The report seeks to highlight some of the challenges and opportunities that producers, traders, banks and other financiers face in a sector that is fast transforming itself. With mobile technology, commodity exchanges and new financing tools revolutionising agriculture in African, Caribbean and Pacific countries, it is time for international commercial banks, insurers and collateral managers to take a second look.

In the report, we explore the rise of African commercial banks in trade and agricultural finance. With international banks edging back from the continent since the financial crisis, local players have stepped forward to plug the gap. Local banks have already proved they can go it alone with big syndications for energy. In agriculture they are using their local branches and on-the-ground knowledge to help finance agri inputs and resultant product flows further down the value chain. Keen to tap that expertise, some international banks are also looking to partner with or buy stakes in African banks.

Already big in Latin America and parts of Asia, warehouse receipt finance is now making strides across Africa. Countries such as Ethiopia have led the way with commodity exchanges, and other countries are poised to follow suit with exchanges. In addition, sophisticated electronic receipt systems are also making inroads in several countries. We look at the efforts that individual countries are making to implement the system and how banks, producers and traders can overcome persistent challenges like fraud and crop theft.

With microfinance still one of the most available sources of credit for small farmers, we zoom in on Canada's Syfaah initiative in Haiti, which uses a three-pronged approach to improve farmers' yields: economic stability and access to finance by offering credit, insurance and technical assistance. Over in India, we learn lessons from BASIX, a longstanding provider of microfinance that is attracting more attention from local banks, keen to funnel money through it to farmers.

We also look back at the history of Ghana Cocoa Board's annual pre-export finance transaction. Over nearly 21 years, Cocobod has managed to attract $15 billion worth of financing from international banks. Will neighbours like Ivory Coast ever be able to replicate this model?

We hope you find the feature articles and interviews interesting and informative, and that some of the topics and issues discussed will provide further impetus to get the right sort of financing tools to the people that need it most. The work being done by CTA and others continues to play a major part in transforming the playing field for agricultural financing. The future for the provision of agricultural finance in African, Caribbean and Pacific countries is certainly looking brighter, but only with continued training, education, innovation, perseverance, and real hands-on attention to detail will agriculture in Africa be able to realise its full potential and play a key role in achieving prosperity across the region. ■

African banks on the rise

African banks are taking the lead in financing the continent's farmers, traders and soft commodities. With more local money in the system, they are also reaching further down the value chain, though still find financing farmers directly a challenge. At the same time, international banks are snapping up stakes in local players, hoping to piggy-back on their distribution network and on-the-ground expertise.

African banks have a huge role to play in agricultural finance and their growth in this space is "inevitable," says Richard Wangwe, head of agriculture at Stanbic Bank Uganda.

The growing role of African banks in trade finance was acknowledged by the WTO Expert Group on Trade Finance at their meeting in late April.

African banks have shown greater ability to syndicate big trade finance deals, mostly in the commodity space, without external support, the group concluded, according to Marc Auboin, a counsellor in the WTO's Economic Research and Statistics Division. More local and regional banks have invested in trade, partly filling a gap left by the retreat of global banks since the financial crisis.

However, financiers have become more selective and remain focused on top-rated customers, leaving smaller traders with less finance than before, the group found.

"Africa can finance itself," says Hiren Singharay, regional head of syndications, EMEA, for Standard Chartered. "Five years ago, not a single Nigerian bank had crossed the Congo to the east. Now all major Nigerian banks have done it. And five years ago, excepting Stanbic, no South African bank had crossed the Limpopo River to the north. Now they're everywhere."

After the financial crisis, a number of international trade finance banks pulled back from Africa, leaving a financing gap. "They kept financing their best customers – so the Cocobods and Sonangols still got their financing – but not the smaller and medium players," says Edward George,

Local banks are financing a greater share of African agriculture, using their own money to reach further down the value chain.

Richard Wangwe, Stanbic Bank Uganda: "African banks have a huge role to play in agricultural finance and their growth in this space is inevitable."

Richard Wangwe at Stanbic Bank Uganda

head of soft commodities research at the pan-African bank, Ecobank. "There's ample liquidity in the world, but not for Africa."

Mandate to expand

"Most South African banks have a strategy to expand into Africa," says Zhann Meyer, Africa head, global commodity finance at Nedbank Capital. "It's not about whether we're going to do it – we have to do it," he says. "It's something that's expected by our shareholders – to work in the African space, and assist the continent in growing."

Nedbank's mission for Africa is to follow its existing clients as they too make inroads in the continent, he says. "They're going into Africa and we're following them in areas and footprints where they're comfortable."

Banks on the continent need to increase their on-farm exposure, making sure they get into the supply chain at ground level, Meyer adds. The bank's next step is to identify countries with conducive government policies in place and then the corporate players it could assist in growing the industry.

Local banks including government-owned landbanks, "have always had a dominant market share in South Africa when it comes to agriculture finance," says John Hudson, agriculture manager at Nedbank.

That said, Nedbank only got serious about agriculture five to six years ago as the financial crisis triggered a greater appreciation of the returns that it could generate compared with other asset classes, he says.

Agriculture, commodities and, more recently, fixed assets like land and infrastructure, suddenly started attracting investment. "Agriculture became flavour of the month," Hudson says. The bank now has dedicated agricultural teams that engage with commercial farmers in South Africa.

At Barclays, although its Africa team sits in Johannesburg, "we have a mandate to operate across Africa" and go wherever our clients go, says head of structured trade and commodity finance, Francois Visagie.

African cash

An estimated 85 million to 95 million households in Africa now have a disposable income of at least $5,000. "The money is there, and that money is flowing into pension funds, it's flowing into banks, and into mutual funds," says Singharay. "There's a lot of cash in the system, and that can finance the agriculture sector."

"African banks are taking the initiative and putting more skin in the game," says George. For example, in a $500 million deal that Ecobank lead arranged last year for Orion Oil, "all that money came from African banks."

It might take time to achieve something similar in agriculture – mostly because of the larger physical volumes involved in soft commodities and the longer value chains – but energy is a good first step, he says. "It's really shown that

African banks are taking more initiative and that they can pool their own capital."

Partnerships and acquisitions

International banks are also striking up more partnerships with African banks – and in some cases acquiring them – as a lower-risk way of extending their reach into the continent.

Partnerships allow international banks to put their expertise and bigger balance sheet to work using a regional bank's relationships, distribution network and local knowledge, says George.

"A lot of the multinational banks often don't want to have operations on the ground (in Africa) because it's expensive, but they want to do business there," he says. "If you are a pan-regional bank, you can get the money that last mile, and you have the physical presence on the ground."

Ecobank has an alliance with Nedbank in South Africa as well as partnerships with Barclays Africa, ABN Amro and Citi. "We help them do business in markets they have an appetite for but where they don't have a presence," says George.

Nedbank has until the end of November 2014 to convert a $285 million loan it made to Ecobank in 2011 into an equity holding, and then expand the stake to as much as 20%. It also owns MBCA Bank in Mozambique and in June completed its acquisition of a 36.4% stake in Mozambique's Banco Unico for $24.4 million.

Edward George at Ecobank

Rabo Development (Rabo) has also taken the acquisition path to expand its presence in Africa. Over the past nine years it has invested in five local banks. These include National Microfinance Bank (NMB), Zambia Commercial National Bank, Banco Terra in Mozambique, Banque Populaire du Rwanda (BPR) and, more re-

Edward George, Ecobank: "A lot of the multinational banks often don't want to have operations on the ground (in Africa) because it's expensive, but they want to do business there. If you are a pan-regional bank, you can get the money that last mile, and you have the physical presence on the ground."

cently, DFCU Bank in Uganda.

By taking large minority stakes, typically around 40%, Rabo also gains the right to install its own management – usually the CEO, head of risk management and head of retail – at banks it invests in. Through its Rabo's advisory unit, RIAS, it also provides them with technical assistance and risk solutions. "The important thing is that we are not a silent or passive investor," says Hans Bogaard, head of agribusiness.

RIAS also advises other banks on how to implement their agrifinance strategy. Clients include Ethiopia's Cooperative Bank of Oromea, the Development Bank of Ethiopia and Kenya's Chase Bank.

Rabobank also opened a Nairobi branch in June, serving commodities clients.

Distribution and risk assessment

"Where local banks have an advantage is their actual presence on the ground, close to the primary farming community," says Visagie. "The cash that has to be disbursed can be done via the normal banking network."

"We have branches across the continent so we're pretty much seen as a local bank in most markets," he says. While its West Africa footprint is limited to Ghana and a representative office in Nigeria, "in East and South Africa we're pretty much everywhere we should be."

Francois Visagie at Barclays/ABSA

Stanbic is present in 17 countries across sub-Saharan Africa and is in the process of extending its branch network to Rwanda and Congo, says Wangwe.

On top of its South African branch network and its partnership with Ecobank across West and Central Africa, Nedbank has an office in Kenya.

"That is really the raison d'etre of a regional bank in Africa," says George. "It is their presence on the ground and it is being able to use the networks they have to service the trade and the business of international companies and multinational banks."

Francois Visagie, Barclays/ABSA: "The biggest thing we can do as local banks or international banks is to help provide training for subsistence farmers. If you can upskill these people to start thinking more commercially, Africa could well be the food basket for the world."

Local presence also helps with accurate risk assessment.

"If you're a local bank, you have a different perception of country risk, because you've been there many years," says George. "It may be that a country has a bad reputation – but you know exactly how to do business there."

"You also have a much better perception of counterparty risk, because it may be you've been doing business with a counterparty for 20 years," he adds. "You can immediately vouch for them. That is extremely useful for multinational banks."

"African banks have an advantage in that they have relationships on the ground. This gives you a degree of comfort," agrees Meyer. Emailing a client or looking at his website will never provide as much insight for a bank as going to his office or visiting his operations, he notes.

Having people in-country also gives banks crucial intelligence that lets them assess and manage specific risks as they unfold, he says. For example, "with Nigeria declaring war on terrorism, how will that impact on agricultural areas where small-scale farmers operate?"

Funnelling cash to farmers

Local banks are also leading the way in extending credit to smallholders, says Singharay. Equity Bank Kenya, for example, can disburse a loan to a farmer within 10 minutes of him walking in the door, and has been making profit on capital of up to 25% over the last five years. "There's a lot of money to be made in this business. But it requires local knowledge and being on the ground," he says.

One way local banks can help money flow through the value chain while disproving the perception that agriculture is risky is through financing the outgrower schemes that are linked to established off-takers, says Wangwe, adding that this has been quite successful in the sugarcane,

THE ABSA connection

Although Barclays plays a quasi-local role in Africa, largely through its inherited ABSA Bank network, it brings to the table international advantages, says head of structured trade and commodity finance, Francois Visagie. As well as being on the ground, it is able to provide dollar financing to off-takers and traders, and has a more sophisticated suite of financial tools with which to structure deals. It also leverages off an international client base. Its partnership with Ghana Breweries, for example, partly sprang out of an existing relationship with its parent, Diageo.

Edward George, Ecobank: "If you're a local bank, you have a different perception of country risk, because you've been there many years. It may be that a country has a bad reputation – but you know exactly how to do business there. You also have a much better perception of counterparty risk."

horticulture and coffee sectors.

African banks need to work more though with non-governmental organisations (NGOs) and microfinance institutions (MFIs) to help them develop products that can be extended into more rural regions, he says. They can also help subsistence farmers commercialise their operations.

Nedbank focuses on financing export traders across Africa, supporting their efforts to "integrate backwards" and provide technical support to the smallholders they buy from and to add value on the continent by investing in cotton gins, crushing mills and other processing facilities, says Meyer.

"Smallholder farmers pose a challenge," even for banks with a local footprint, he says. The lack of a land ownership model in much of Africa means "you can't take a vanilla approach and say you will take a mortgage over the land as collateral," he says. Side selling too is a "massive" risk for us.

"So we wouldn't directly loan to small-scale farmers," he adds. "We would use a contract manager to sub-contract the farmers and manage the portfolio on our behalf."

Rabo Development's BPR finances the inputs for rice cooperatives in Rwanda based on offtake contracts with Australia's ICM, which has invested in a rice milling joint venture in the country.

Another model that banks are generally comfortable financing is the commercial farming hub, says Meyer. Here, a commercial farmer who leases land contracts other farmers and supplies them with seeds, insecticides and, if mechanised, diesel. If the commercial farmer has processing capacity too, another benefit for him is increased throughput.

Kenya is a leader in terms of improving the bankability of cooperatives, especially in its moves to encourage collective payment obligation, says Meyer. This gives banks a legal entity that they can define

Zhann Meyer at Nedbank Capital

as obligor. "If you as a small-scale farmer decide to side-sell your crop, it puts at risk the access to finance of the cooperative. So they check each other, which is the best policing you could ask for," says Meyer.

Barclays Africa has partnered with the private sector to facilitate the flow of value chain finance to subsistence farmers in Kenya and Ghana. With one project, small-scale farmers in Ghana supplied grain to Ghana Breweries, which also supported the farmers with inputs. Barclays then discounted the sales on the strength of the brewery's balance sheet.

By financing intermediaries who provide farmers with the tools to start a sustainable farming practice, "you can actually run the chain right through to the primary farmer," says Visagie.

With farming making up 64% of Africa's workforce, "the biggest thing we can do as local banks or international banks is to help provide training for subsistence farmers," he says. "If you can upskill these people to start thinking more commercially, Africa could well be the food basket for the world." ■

Funds fill gaps in the value chain

Development banks and private funds find new ways to plug the gaps in agricultural value chains that commercial banks can't or won't reach.

Development finance institutions (DFIs) have of course always led the charge in sweetening deals in emerging markets – using their own liquidity, quasi-sovereign rating or willingness to lend for longer tenors as a way to attract banks to the table. But now the DFIs are experimenting with new strategies and structures to get funding to the small farmers and traders who need it most.

Channel through the traders

The Netherlands' development bank Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden (FMO) is currently setting up a funding programme in cooperation with the Dutch Sustainable Trade Initiative (IDH) to finance farmers via supply chain managers. It expects to conclude its first transaction with a major trader very soon and is also in talks with several other traders, according to Marjolein Landheer, manager of agribusiness, food and water.

"We cannot provide small, single loans for farmers," she says. But by channelling funds through supply chain managers like traders, FMO can "go one step further along the value chain than we have up until now".

And while traders already usually part-finance their suppliers by providing seeds or fertiliser, it is "in most cases to a limited extent," says Landheer. "We would like to come in to make their farmer finance programmes larger."

FMO and IDH have so far pooled $50 million and will target a handful of specific smallholder crops including coffee, cocoa, cotton and palm oil. This will naturally lead the programme to focus on West Africa, Central America and Indonesia, says Landheer.

They will use the money to pre-finance farmer inputs and aim to also provide medium- to longer-term financial support by funding the replanting of trees.

FMO is also working to build relationships with local banks in emerging markets. It has a strong relationship with National Microfinance Bank (NMB) in Tanzania, and last year arranged and part-financed a

ITFC has already concluded a handful of import financings for African agriculture under Islamic Murabaha structures; in Ivory Coast, Burkina Faso, Mozambique, Gambia and Senegal. It also expects by Q4 of 2014 to have launched its first Islamic discounting in either the Gulf region or Indonesia.

$65 million loan to support the bank's private-sector lending, including to small- and medium-sized enterprises (SMEs) in agribusiness.

Giving local banks the comfort to lend at longer tenors is another key benefit that DFIs can bring, says Landheer.

"Sometimes, if you as a DFI provide the longer term, they're also inclined to push their limits a bit, and also provide funding," she says. "Where they normally only provide three-year limits, now they can go to five years because they know there is another party involved giving an even longer tranche."

Target the long-term

A lack of long-term financing is indeed one of the biggest challenges that agriculture faces, says Paola Bazan, senior investment officer at the Inter-American Development Bank (IADB).

By its nature, agriculture needs long-term investment to pay for regular field maintenance and support continued crop productivity, but this is still relatively scarce in most Latin American and Caribbean countries, she says.

"The bank's response to this challenge is to provide long-term financing to the private sector," she says.

Key agribusiness projects supported by the IADB include a $92 million facility for CAIASA for soya in Uruguay, $80 million of finance for Adecoagro in Argentina for land transformation, rice mills, biogas and free stalls in dairy, and $10 million of finance for Nicaragua's Agricorp in the rice and bean sectors. IADB's agribusiness portfolio is bigger than $600 million and growing.

Islamic innovation

Development banks are also using more innovative financing structures to fund agriculture, while leveraging their strong credit ratings to mobilise funds from other banks.

The Islamic Trade Finance Corporation (ITFC) hopes in the fourth quarter of this year to launch a major international syndication for a structured commodity trade deal, according to Nazeem Noordali, general manager, corporate and structured finance.

It is in talks with several banks in the European maket who "need a reliable partner" in emerging markets and are attracted by ITFC's preferred creditor status, he says. The bank's shareholders are member governments and its structured trade finance portfolio has an excellent track record, he notes.

As well as experimenting with ways that traditional Islamic finance products can be applied to agriculture, ITFC is also developing Sharia-compliant versions of structures that are already widely used.

It has already concluded a handful of import financings for African agriculture under Islamic Murabaha structures, in Ivory Coast, Burkina Faso, Mozambique, Gambia and Senegal, says Noordali. It also expects by Q4 of 2014 to have launched its first Islamic discounting in either the Gulf region or Indonesia.

Technical assistance

As with most DFIs that include sustainability as part of their mission, FMO and IADB both prioritise technical assistance for farmers in their agricultural finance programmes.

The UN's Food and Agriculture Organisation (FAO) is also currently working with the UN Industrial Development Organisation (UNIDO) and the African Development Bank (AfDB) to raise $25 million for a technical assistance facility targeting African agribusiness and agro-industry development, according to Calvin Miller, senior officer and group leader for agribusiness and finance.

"We're trying to raise awareness about how important it is to look at the whole value chain," he says. With this approach, the organisations will look at ways to strengthen the weakest links such as agri marketing and storage, rather than simply focusing on production. ■

Private funds bring additional resources

In addition to the work of development finance institutions, there is a growing army of private funds dedicated to agriculture, soft commodities and trade finance. These are tapping cash from investors who see the potential in agriculture, possibly have more knowledge of the sector and, by investing through a fund, don't face the credit committees and regulatory capital requirements that can tie bankers' hands.

Private sector investment is increasingly being targeted at agriculture, says the FAO's Calvin Miller, who is also founder of MicroVest, a $250 million family of microfinance and SME investment funds.

The financial crisis boosted the attractiveness of investment funds among increasingly risk-averse investors at the very time that reports of looming global food shortages were hitting the press, he says.

For an investor who recognises the opportunity in agriculture, funds offer a relatively straightforward way to invest without over-exposure, Miller says. By pooling investors and investments, investment funds help spread risk. And the fact that they are overseen by a fund management team also gives investors confidence to take on specific country or sector exposure without having on-the-ground experience.

That said, private investors can be more "skittish" about investing in smallholder organisations in times of political turmoil. And while some investment funds are targeting harder-to-reach parts of the agri-value chain, they do need more assistance from governments or donors, in the form of policy development, infrastructure or addressing capacity needs, to help attract private investors, he adds.

One fund that has a large concentration in Latin American agriculture and says it is "very comfortable" with the risk is IIG Trade Finance. It is also not afraid to innovate.

In November 2013, IIG Trade Finance completed the first securitisation of non-bank trade finance loans related to Latin American agriculture and soft commodities. The resulting company issued $220 million of collateralised loan obligations (CLOs) that were structured and arranged by IIG and placed by Deutsche Bank Securities.

Although banks will continue to be by far the biggest players in trade finance, funds like IIG play an important role by financing small- and medium-sized traders, according to managing partner David Hu.

After its CLO, for example, a number of multinational traders contacted IIG. Although it was ultimately too expensive for them, one major European trader introduced it to its own suppliers – exactly the point in the agri-value chain that IIG feels it best adds value.

So while funds like IIG are unlikely to take over from banks in financing names like Glencore, the big traders remain important partners and sources of business leads. "As offtakers in the business, the ABCDs are great counterparts to have when financing exporters in emerging markets," says Hu.

Warehouse receipt finance comes of age

Already thriving in Latin America and parts of Asia, warehouse receipt finance is gaining a foothold in Africa with the roll-out of commodity exchanges and the gradual introduction of electronic receipts.

Warehouse receipt finance is spreading fast, giving smaller traders and bigger farmers or cooperatives the chance to tap finance immediately while they protect their produce and hopefully negotiate better prices for it.

There remain huge challenges though. If not properly managed, warehouses remain vulnerable to everything from theft or fraud to insect infestation. And although using a collateral manager provides more comfort to banks extending the credit, there still aren't enough active in Africa.

The positives

"The key advantage of a warehouse receipt is it resolves a whole series of problems at once," says Edward George, head of soft commodities research at Ecobank.

Firstly, it protects the crop – a big issue in Africa, where an estimated 20% to 40% of harvests rot before reaching market.

It is also "a great way of freeing up financing for the farmer," says George. "It's a financial instrument that can be traded. But also, you can lend against it."

Without warehouse receipt finance, many commercial traders would not have enough collateral to meet banks' requirements, given the huge quantities of grain that they are dealing with, says Richard Wangwe, head of agriculture at Stanbic Bank Uganda.

Warehouse receipt finance is especially helpful for smaller traders who might struggle to borrow otherwise, agrees Chris Scott, business development manager at Drum Commodities, a collateral manager with 18 subsidiaries across Africa, covering everything from cashew nuts, cocoa and coffee to frozen fish, tobacco and fertilisers.

In a number of instances: "We've been told by the banks that certain people would only get access to finance with this type of structure in place and with the collateral management company giving greater weight and authority to warehouse receipts."

"It reduces the risk for the bank if they can have a third party there, essentially saying 'If it's not there, we accept responsibility for that'," he says.

And even for bigger traders or exporters that already have easy access to finance, the fact that banks can use the stored produce as collateral means that warehouse receipt finance does not eat into their existing unsecured borrowing limits, says Makiko Toyoda, leader of the International Finance Corporation's (IFC's) Global Warehouse Finance Programme. "The banks can shift their risk from the borrower's balance sheet to the commodity itself."

And because banks' risk is lower, they can lend at more attractive rates.

Warehouse receipt finance also hands more negotiating power to farmers. If they don't like the price they're offered at the farm gate, they can drive their crop to the nearest warehouse, store it there until they receive a better offer and still receive instant 'payment' in the form of a loan, notes George.

Commodity exchanges are helping here – providing transparent prices that farmers can check on their phone, notes Toyoda. Previously, market prices were a "black hole" for smallholders.

The challenges

The warehouse receipt finance system only works if warehouses are big enough and cost-efficient, says Hans Bogaard, head of agribusiness at Rabo Development. If the costs of storing a crop and financing it are higher than the increase in price, the aggregator may be able to secure for his crop by waiting, he won't use warehousing.

It also relies on the warehouses managers in charge of produce to take proper care of it.

How warehouse receipt finance works

With warehouse receipt finance, a farmer or trader delivers his produce to a warehouse that has been approved by a bank or other lender. The warehouse, or collateral management company in charge of it, then issues a receipt vouching for the quantity and quality of produce being stored. The bank then takes the receipt and provides financing to the farmer or trader – typically up to 70% of its current market value – against it. The receipt acts as collateral for the bank, giving it the right to take ownership of the stored produce if the loan is not repaid.

"A warehouse receipt is only as good as the collateral it is backing," notes George. "If you were to buy a warehouse receipt for 5,000 tonnes of maize, and then when you went to pick it up it was rotting or it wasn't all there, straight away word would get out and no one would want to buy warehouse receipts anymore."

"There are so many quality issues that you have inside warehouses – everything from the cleanliness of the warehouse to the way they store things," he says.

Fraud is also a huge issue. In India, for example, an estimated $1.5 billion of fraudulent warehouse receipts have been issued over the past 10 years, says George.

"Ultimately, it comes down to the quality of the collateral manager and ensuring that all the necessary checks and balances are in place," he adds. "Because there are dozens of ways that you can defraud a warehouse, and they're (defrauders) constantly trying to think of new ways."

Collateral managers provide comfort

"The biggest challenge for the financing bank is validating those warehouse receipts," says Scott. "It's one thing to get a piece of paper saying that X amount of product is at this location. But for that to have any weight, and for anyone to lend with confidence against it, they need some assurances that the warehouse receipt hasn't been written on the back of a fag (cigarette) packet."

"There's a variety of ways to do that. You make sure that you deal with a large, reputable company that has a good background and history in that," he says. "Or you employ a third party, such as Drum Commodities, in a collateral management capacity, who will go into that warehouse, verify that the product is there in the correct quantity, being stored appropriately, and that therefore they will issue the warehouse receipts on behalf of the trader for the banks to finance against."

The IFC relies on collateral manage-

ment companies in countries that don't yet have an official warehouse receipt system. They are "essential", for countries that are in transition, for example many in West Africa, says Toyoda. And in Tanzania, even though a warehouse receipt system is in place, banks still use collateral managers for certain deals.

Government intervention and price risk

There are risks, of course, that collateral managers can't control.

The borrower for a grain stock that Bogaard once financed in Kazakhstan refused to sell after the price crashed. "So your borrower also has to meet its obligations. If he doesn't sell, there's no liquidation on grain and the cash is not coming," he says. Banks need good contacts in such scenarios so they can find an agent to sell crop quickly.

Government interference is another risk. In Tanzania last year, for example, the government set a minimum procurement price for the cashew crop, he says. This was too high for buyers, so banks were left holding cashew crops that they could not sell.

The success or not of a warehouse receipt finance initiative can also depend on whether warehouses are put under the control of the public or private sector.

A lack of business acumen among farmer cooperatives operating warehouses has been a challenge in Uganda, according to Wangwe. When warehouse receipt finance was launched in collaboration with the Uganda Commodity Exchange, cooperatives were put in charge of running a string of warehouses across the country. However, many did not understand the system and failed to market it aggressively. Instead, "they followed the old system of just sitting back and waiting for farmers to come and deposit," he says.

Two warehouses in Uganda are however operated commercially and have been "a tremendous success," Wangwe says.

Stanbic also discounts warehouse receipts outside the Uganda Commodity Exchange for businesses exporting grains to neighbouring countries or selling locally to breweries and millers. "These are doing tremendously well," he says. The bank has so far financed more than $12 million through this method. In comparison, the two private warehouses under the exchange have facilitated $6 million of finance.

For farmers to get the full benefit from warehouse receipt finance, forming cooperatives is crucial, says Toyoda. Even with a warehouse receipt it is difficult for individual smallholders to get bank finance, she says.

Local banks also need to upskill, says Toyoda. As well as introducing transactional or commodity finance capabilities, they need to implement a risk-management framework and train staff. IFC offers a training programme in some African coun-

Crop receipts

Crop receipts – or Cedula de Produto Rural (CPR) as they are known in frontrunner Brazil – appear a natural progression from warehouse receipts. With a crop receipt, a farmer can access finance for his future crop, allowing him to re-invest immediately in inputs required for this or the next harvest.

The IFC is currently working with the Food and Agricultural Organisation (FAO) to study the feasibility of launching crop receipts in Africa, says Makiko Toyoda, leader of the International Finance Corporation's (IFC's) Global Warehouse Finance Programme. It will pilot the product – a version of which is widely known in Brazil as Cedula de Producto Rural (CPR) – in three African countries with a view to implementing the first within 18 months.

tries but banks remain cautious about investing in new methodologies. "We encourage them to make that investment," she says. "Their effort would be paid off after one or two years."

Commodity exchanges and e-receipts

To be most efficient, warehouse receipt finance usually requires a smoothly functioning commodity exchange. This has partly triggered a rapid roll-out of commodity exchanges across Africa, in Ethiopia, Kenya and most recently in Ghana. It is a symbiotic relationship though, with each relying on the other.

Warehousing systems "form the backbone to commodity exchanges," says George. This is well demonstrated in Ethiopia, where government-run warehouses dot the countryside. Nigeria's lack of a good warehousing system was however a big factor in the collapse of the country's cocoa exchange.

South Africa has a model that many African countries seek to replicate. Its commodity futures exchange allows automatic clearance, notes Bogaard. "For a bank, that's very nice because you know there is a guaranteed exit and you do not have to worry about the marketing of the goods."

Rabo Development also advised the IFC and the Ethiopia Commodities Exchange on how to implement that country's electronic warehouse receipts initiative.

Under that system, commercial banks' systems have been linked up with the country's commodity exchange, so that when a warehouse receipt is issued at a warehouse, banks can immediately see the receipt's number in their system and determine how much they are able to lend, says Toyoda.

IFC is in the process of implementing similar systems in Malawi, Mozambique and Senegal.

For countries that already have a commodities exchange but which don't yet have a warehouse receipt system, "it's better to introduce an electronic one from the beginning," Toyoda says. Although it can be costly to set up, "it provides more efficient operations to the banks, and also price transparency".

Despite a "huge amount of talk about electronic warehouse receipts," they "don't' really seem to have taken off as yet," says Scott. With the entire industry being intrinsically about security, "people are naturally very distrustful of new ways of doing things" and "still seem to prefer the old piece of paper with two signatures".

That said, "paperwork is old-fashioned, it's time-consuming, and I don't think it fundamentally is any more risk-proof than a secure electronic system".

Also, electronic warehouse receipts reduce costs and allow traders to get their financing much faster, he says. Because of this, "almost inevitably, there's going to be a move towards" them. ■

Regulation is key

There is a huge variation in how different countries have implemented warehouse receipt finance, and how successful it has been. Although opinions differ on how much governments should intervene in the process, the support of regulators is key.

Establishing warehouse receipt finance successfully in a new country requires a push from the government, plus the involvement of a major organisation such as a commodities exchange to drive it forward, says Edward George, head of soft commodities research at Ecobank. "Just dropping a few warehouses here and there isn't going to help matters – they have to be part of a network that feeds into a value chain."

Regulatory direction is vital for a well-functioning warehouse receipt market, says Makiko Toyoda, leader of the International Finance Corporation's (IFC's) Global Warehouse Finance Programme. "Without rules and regulations, commercial banks will not come to the market." It is also important that central banks get on board early in the process and recognise warehouse receipts as collateral. Government licensing and inspection of warehouses is also essential so that banks trust warehouses.

Ethiopia is often cited as a model for its rapid implementation of a commodity exchange and electronic warehouse receipts.

The country is a "unique case" and demonstrates how important regulatory direction is, says Toyoda. Because Ethiopia's government made warehouse receipt finance a top priority, it was pushed through quickly. "In some countries, it comes from the bottom up – from the market. But in the case of Ethiopia, it was initiated by the government."

Tanzania is another good African example of how banks and the government can work together, she says. It passed legislation to support warehouse receipt finance in 2005 and is now amending the law to make the market more efficient.

Latin America has some of the world's most advanced warehouse receipt finance systems, with Paraguay presenting a good example of how even small countries like Malawi could benefit. Its central bank has led the initiative and strictly regulates warehouse operators, which boosts banks' willingness to lend, says Toyoda.

Kazakhstan provides another model that African, Caribbean and Pacific countries could seek to replicate when implementing warehouse receipt finance, says Nazeem Noordali, general manager, corporate and structured finance, at the Islamic Trade Finance Corporation (ITFC). The country has a robust grain law, which has helped attract $2 billion of finance per year, half of it from international banks. Warehouses are government-licensed and physically checked on a monthly basis, warehouse receipts are printed by the ministry of agriculture, meaning "it's a recognised document – it's enforceable," and the country is now moving towards electronic receipts.

"It's a brilliant system," Noordali says. "If we can develop something similar in Africa and other countries in Asia, that would give a lot of comfort to banks," he says. "Banks will invest much more in countries where they have these laws and, most importantly, the law is enforceable."

Ghana's Cocobod sets the standard

The annual Ghana Cocoa Board financing provides pointers for other African producers to follow.

Now in its 21st year, the annual pre-export financing of Ghana's cocoa harvest is an example of how African agriculture really can attract big international banks – and increasingly cheaply – given the right mix of government involvement, industry organisation and deal structure.

The annual Ghana Cocoa Board (Cocobod) transaction is a "historic legacy structure" that was born out of Ghana's resistance to the wave of IMF-ordered privatisation reform that swept Africa in the 1980s and 1990s, says Julian Madgett, head of commodity and structured finance at ICBC Bank in London.

Unlike other countries, which followed the IMF's commands to the letter, "Ghana did a very slick thing," says Hiren Singharay, regional head of syndications, Europe, for Standard Chartered in London. Although cocoa production and distribution was privatised, the government-owned Cocobod was kept in place as a final link in the value chain – a crucial point of contact between the domestic industry and international buyers and banks.

In Ghana, a handful of private companies with a government license are responsible for inspecting and buying smallholders' cocoa. They then deliver the cocoa to Cocobod, which buys it from them and stores it in government-owned warehouses.

By the time banks step in to finance the purchase of the cocoa by big international companies like Nestle, the risk of everything from crop disease to transportation has already been stripped out of the equation. Instead, they are dealing with quality-checked cocoa, a multinational corporate buyer and a quasi-sovereign seller, says Singharay, who was involved in Cocobod's first pre-export financing and comments here in a personal capacity.

This has proved a "lynchpin" to the syndicated deal, which effectively draws together thousands of three-acre farmers into one bankable body that credit committees accept as Ghana risk, he says. As a result, the deal is nearly always oversubscribed and the cost of financing for Cocobod continues to fall.

It has enabled Cocobod to raise over $15 billion since its first such transaction in 1993, notes Madgett.

Trickle-down effect provides smallholders with stability

The Cocobod transaction has also provided a mechanism under which money flows down the value chain to smallholders in a stable, predictable way.

Farmers know they will receive a specified percentage – typically around 70% – of the free-on-board (fob) cocoa price for their produce, says Singharay. This gives them confidence to replant, encourages future generations to remain in farming and has helped Ghana's cocoa production to quadruple over the past decade.

Because of the way its industry is organised, "cocoa has meant prospects and stability and social harmony for Ghana," he says. "It has not done that in Ivory Coast," where farmers remain exposed to the whims of big, private cocoa buyers.

Cocobod is also notably progressive in its transparency, says Madgett. It makes public statements detailing what percentage of its export earnings in local currency go to farmers. This incentivises quality production and gives farmers a stable, predictable and timely income.

The existence of Cocobod also helps ensure that small family-run farms get access to high-quality beans and fertilisers, according to another banker involved in this year's transaction. "In that respect, (Cocobod) has a great impact," says Madgett.

Changes ahead?

Ghana's biggest licensed cocoa buyer will break with tradition this year by borrowing less from Cocobod. Produce Buying Co will borrow 400 million cedis from the board this year, down from 450 million last year, it said in March, citing rising inflation and domestic borrowing costs. It will seek to plug the gap with finance from government agencies and banks. The cost of borrowing from Cocobod had by March risen to around 18% from 16%, according to deputy finance manager Osei Manu.

Indeed, Cocobod pledged in June to extend this assistance, promising free fertiliser for farmers in a bid to overtake Ivory Coast once again as the world's biggest cocoa producer.

Cocobod's research and development facility has also continued to be a good source of innovation on husbandry and agronomy, says Madgett. This has enabled smallholders to replant with acreage with more disease- and drought-resistant cocoa trees, improving their yield and the overall country's cocoa production growth.

Political risk and smuggling remain sore spots

Compared with the fragmented privatised systems that you see in other surrounding countries, "Ghana has a relatively centralised, supply-primed and well-organised national system," says Madgett.

There are weak points though, bankers say.

Cocobod's state-owned status exposes lenders to an element of political risk. For example, its balance sheet has in the past been used to service obligations not connected with the cocoa industry, he says. A build-up in recent years of Bank of Ghana cocoa notes, which ultimately had to be refinanced, is another concern.

There is also a small side risk of smuggling between Ghana and the Ivory Coast. Because Ghana's cocoa prices have historically commanded a premium in the market, this has raised the question of what proportion of Ghana's total crop truly comes from Ghana and what proportion has been smuggled from the Ivory Coast.

In recent months that trend has actually reversed, with Ghana's weaker currency – down 20% against the US dollar in the first six months of this year alone – making smuggling into the Ivory Coast more lucrative. Cocobod's regulator pledged in June however to raise its fixed cocoa price next season to a level that counteracts that.

As the world's biggest cocoa producer, the Ivory Coast would seem an obvious candidate for a Cocobod-scale structured syndication. However, despite on and off discussions, no deal has ever got off-the-ground. And nor is it likely to with the industry organised as it is, bankers say. Indeed, across African soft commodities in general, only Mali's cotton industry has ever managed to pull off anything similar.

Changing of the guards

Six relative newcomers were named in May 2014 as bookrunners for this season's crop financing, which as usual should close in September 2014.

Unusually, German banks dominate as the mandated lead arrangers (MLAs), with Commerzbank, Deutsche Bank, DZ Bank and KfW IPEX-Bank being joined by Barclays and Natixis. Most of the usual suspects for African agriculture lost out in the bidding.

Some of the MLA banks in this year's deal have previously not participated in the transaction and, if they have, not in a leading position, acknowledges a banker at one of this year's bookrunners.

It is not hard to see the attraction though, he says. As well as this being the African agriculture syndication, banks appreciate the open tender process, which allows them to club together and pitch their proposal, without much interference from Cocobod.

Also, Cocobod "acting as a fronting body" gives banks a degree of confidence that has proved justified over time, he says. The transaction has an "excellent track record" and Cocobod has never repaid late.

At $1.6 billion, the one-year deal is bigger than 2013's $1.2 billion transaction. Pricing is also believed to have fallen yet again – to a rumoured 55 basis points (bp) over Libor, from 75bp last year.

Even if pricing falls further, Cocobod will probably continue to attract big banks, and especially those who don't otherwise have a strong Africa presence but want to 'tick boxes,' says Singharay. In this way, Cocobod is similar to Angolan oil company Sonangol, which historically has been the only other African commodity risk that many banks will touch.

Meanwhile, banks with a deeper presence in Africa, "are all either walking away or reducing our exposure" to Cocobod, Singharay says. "Our common view is let other people play in this field." ■

Innovative thinking helps close credit-data gap

Access to finance and services for farmers is changing rapidly with the help of the mobile phone and the internet, as well as innovative assistance programmes from a number of new companies.

One of the biggest challenges small farmers face when they try to access finance is that they are an unknown risk. More farmers in African, Caribbean and Pacific countries have a mobile phone than a bank account, and even when they have tapped credit, it tends to be in a non-traditional form that passes through the net of mainstream credit data collection.

This is changing. Internet start-ups, credit bureaus and even development projects are using new technology to help smallholders create their own 'credit' history, or at least a clearer picture of who they are and how well they run their businesses. With the collection and sharing of everything from utility and mobile phone bills to records of input purchases and crop yields, farmers are finally gaining a financial identity – and one that banks or MFIs are increasingly prepared to lend against.

Farmforce

"A big part of the problem of giving credit to smallholder farmers is that their economic life is informal," notes Spencer Morley, implementation manager at Farmforce. "There's basically no formal record of what they're doing." And without the ability to make a credit assessment, banks and other financiers are reluctant to lend.

Where Farmforce steps in is by offering a mobile web system that helps more than 16 contract farming schemes in Guatemala, the Philippines and sub-Saharan Africa improve their management and record keeping.

Field agents employed by the schemes use an Android mobile app on their visits to smallholder suppliers to record every-

> Spencer Morley at Farmforce: "As soon as (banks) have three seasons of verified, time-stamped, geo-tracked agricultural production data, they're happy to lend the money."

thing from the quantity and frequency of pesticide application to how much crop a farmer ultimately produces from how much seed.

The creation of real-time records that are geo-specific and are automatically relayed back to head office means schemes can ensure that their produce complies with export market requirements and that they are alerted immediately to potential inefficiencies and other risks like fraud or side-selling.

But that isn't the only benefit. Records like this give lenders confidence, even in the absence of traditional credit data.

All the banks that Farmforce has spoken to since its launch in 2012 say that "as soon as they have three seasons of verified, time-stamped, geo-tracked agricultural production data, they're happy to lend the money," says Morley.

For some produce such as French beans in Kenya, that three-crop history could be available as early as next year.

Creditinfo

"One of the biggest things holding back agriculture in many developing countries is access to finance," says Shane Moldenhauer at Creditinfo, a credit information and credit risk management solutions provider. "They're completely out of the financial grid – they're unbanked."

Creditinfo helps address this by gathering non-traditional data – ranging from company invoices and bills to registrar data – to build a bigger picture of individual farmers and the companies they supply. It then sells that data to banks and microfinance institutions (MFIs) and also works to educate farmers on ways they can improve their ability to borrow.

"We're trying to say to farmers that you actually have a financial identity that you can create," says Moldenhauer. "And if you have a financial identity you can get access to credit."

In the five years since Creditinfo entered Georgia, financial inclusion in the 15 to 70 age range has grown from 800,000 people to 1.7 million.

It aims to replicate this success in Jamaica and Guyana, where it launched last year. In Africa, it already has operations in Tanzania and Cape Verde and – through a joint venture formed this February with biometrics company VoLo – in Gambia and Senegal.

The company's near-term target is to double the number of countries it operates in, with many of those new markets likely to be in Africa and the Caribbean, Moldenhauer says.

FarmDrive

Formed this year by a group of students at Nairobi's School of Computing and Infor-

Agriculture's mobile revolution

Mobile technology is transforming the lives of small farmers. With smartphone penetration sweeping across Africa, producers can already access everything from current commodity prices to weather forecasts, book-keeping services and technical advice from their handset. Mobile banking services like M-Pesa allow farmers to carry out safe, cash-free banking and access small loans from MFIs like Musoni. Ventura Associates, for example, aims to have two million farmers connected by the end of this year to a banking platform it is launching in Mali. Mobile banking already means that claims against some Syngenta Foundation crop insurance products can be paid out within days. And from August 2014, an e-Bay style digital trading house called Agrocentral will even put farmers in Jamaica in direct contact with potential buyers, all via their mobile phone.

matics, FarmDrive will use data it gathers on smallholder farmers to connect them with investors via a new web and mobile platform.

To qualify for a traditional loan, a farmer needs to produce at least three months of records, detailing their input costs, output and earnings, says co-founder Peris Bosire. However, most don't keep precise records and many are not even aware that doing so could help them access finance. This "locks out farmers," she says.

Under the system, smallholders log details of everything they spend, produce, own and earn on a mobile app. FarmDrive uses this data to create a profile of the farmer, outlining where he is located, what he produces, how successful he is, how much money he needs and what he plans to do with it. This builds a picture that investors can use to determine the potential risk and return attached to a smallholder, says Bosire. Essentially, "we recreate the creditworthiness of the farmer".

Potential investors can search farmers by location and sector and, when they find one they like, can request from FarmDrive more detailed access to his or her financial records. They can also invest in farmer groups who are prepared to guarantee each other's loans. Investments can start as small as 3,000 Kenyan shillings ($34).

Fifty farmers across Kenya are so far signed up, and are helping FarmDrive fine tune what methods of data collection work best. It aims to launch in September.

AKCP

The Association of Kenya Credit Providers (AKCP) also takes a non-traditional approach in its efforts to create a sharable pool of credit data that will give banks and other lenders more confidence to lend to farmers and other individuals.

AKCP has already signed up banks, licensed MFIs, development finance institutions and the M-Shwari mobile phone-based loan product to its Credit Information Sharing (CIS) project, which provides a framework under which credit providers log both positive and negative data about clients through credit reference bureaus, says CEO Jared Getenga.

Over the next 12 months AKCP will also enable savings and credit cooperatives (SACCOs) to participate and will work to enrol non-traditional lenders like utilities and solar light providers, which will be able to provide data as simple as whether a smallholder farmer pays his electricity bill.

"Agricultural borrowers will be an important beneficiary of this," says Getenga. ■

Shane Moldenhauer at Creditinfo: "We're trying to say to farmers that you actually have a financial identity that you can create … If you have a financial identity you can get access to credit."

Tony Elumelu: Vision for Africa

Entrepreneur and philanthropist Tony Elumelu* shares his vision for African agriculture, including the growing role of local banks and the future of commodity exchanges.

TXF: Can the private sector take the lead in agriculture or are subsidies and development agency support essential? What should governments do to support agriculture?

Tony Elumelu (TE): The private sector must take the lead, as we have done with AFEX (Africa Exchange Holdings) and EAX (East Africa Exchange). The government has a role to play, no doubt, in establishing a supportive environment for business. There is much to be done, for example, in streamlining the process of starting a business, reducing the burden of taxes, duties and fees, expediting permits, and rationalising trade rules.

African governments have a history of interventions in the agriculture sector that inhibit competition and the efficient functioning of markets. Instead, they need to make much faster progress toward open, competitive markets by reversing these policies (eg export bans and import restrictions). And, as much as possible, governments must refrain from fixing prices and distorting markets with subsidies, and generally creating red tape that prevents the private sector from managing supply and demand gaps. Such reforms in agriculture policy could go a long way toward attracting investment, and increasing the productivity of this critical economic sector.

That said, business cannot just stand idly by and wait for things to be perfect, or we will be waiting forever. We must forge ahead regardless and be catalysts for change. The premise of Africapitalism is that the private sector holds the power of economic transformation, through its ability to create social wealth for the long-term. That entrepreneurial power is only partially dependent upon government action and development support. Both are extremely helpful, but Africa must move toward greater self-sufficiency and fill the void with private investment and strategic partnerships, as we have done at EAX with our partnership with NASDAQ.

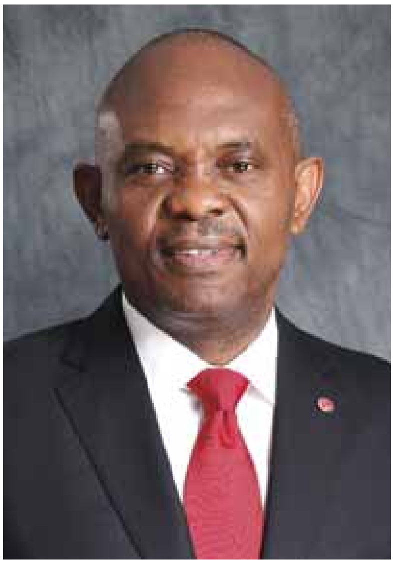
We cannot rely on 'development capital' forever. And to some extent, even in developed economies, governments are always playing catch-up with the private sector. Africa must embrace a new agenda, with business taking the lead on economic development regardless of the obstacles, particularly in agribusiness. As the private sector grows, and creates both jobs and wealth – and presses our respective governments for progress on urgent issues – we can become the change we seek.

TXF: How are the institutions you work with helping to increase the competitiveness and involvement of African banks in agricultural trade finance, including for intra-African and South-South trade flows?

TE: Banks must absolutely increase lending and finance for Africa's agricultural sector, which offers the opportunity not just to earn a significant financial return, but also to reduce unemployment and create social wealth. Africa is blessed with tremendous agricultural resources. African agribusiness offers some of the world's best investment opportunities. That is true whether you are a large company looking for long-term revenue and margin growth, a small socially conscious investor looking to make an impact, or anything in between.

Opportunities exist up and down the entire value chain, from production to processing, to distribution and sales. Currently, Africa faces a deep supply-demand imbalance: consumer demand is growing rapidly, but the agriculture sector suffers from low productivity, as well as a near total lack of domestic processing and distribution capacity. Filling these gaps through domestic private sector investment presents an enormous opportunity for those with a long-term outlook.

The other key ingredient to faster, more inclusive economic growth for Africa is greater intra-African trade. Historically, most of our trade is focused on exporting raw materials off the continent. By contrast, regional trade within Africa includes a higher proportion of manufactured and value-added goods. More regional trade within Africa can help increase employment and local purchasing power. And when we process our own resources here – rather than exporting raw materials and importing finished goods – it will help Africa retain wealth rather than export it.



Tony Elumelu, chairman of Nigeria-based investment company Heirs Holdings and conglomerate Transcorp

The institutions we are developing can play a central role in strengthening both of these drivers of growth. They increase confidence in the agribusiness sector, and increase regional trade, by building local markets, increasing farmers' incomes, and increasing the amount and diversity of available product. We fully expect that as confidence in the sector increases, and as it demonstrates an ability for sustainable growth, banks will step in and provide the necessary financing.

In specific terms, stronger contract laws, as well as adequate guarantees and insurance covers, have helped us secure financing for AFEX's warehouse receipts from United Bank of Africa, which had operations in 19 countries across Africa. We are also working with Equity Bank and KCB for the same purposes. In practice, such banks rely on the balance sheet strength of the securing and guaranteeing company, as obligor risk can be quite high when financing farmers and traders. A strong counterparty, such as AFEX, can provide peace of mind for financial institutions, that inventory in secure warehouses can be

Banks must absolutely increase lending and finance for Africa's agricultural sector, which offers the opportunity not just to earn a significant financial return, but also to reduce unemployment and create social wealth. Africa is blessed with tremendous agricultural resources. African agribusiness offers some of the world's best investment opportunities.

'collateralised' or 'securitised' by banks, thereby giving them confidence to release credit into the agribusiness sector.

TXF: What is your vision for the exchange initiatives in Africa? Do you foresee many national exchanges, a few regional hubs or even a pan-African structure, and how long will it take to get there?

TE: We envision the AFEX network of exchanges to include both regional and local hubs. EAX Rwanda was the first node of a regional commodity exchange. We are currently operational in Kenya and Uganda, and have businesses registered across all East African countries. Tanzania also promises a productive agricultural sector that accounts for 85% of Tanzanian exports. We have already submitted an initial proposal to the government of Tanzania and are very keen on partnering with them.

In each market, AFEX exchanges will leverage NASDAQ OMX's world-class technology and invest in warehousing and collateral management services to establish an automated trading platform and electronic warehouse receipt system, creating new trading opportunities in the region and internationally.

In Nigeria, for example, the government is completing the construction of several silo complexes across the country, with a goal to reach 1.4 million metric tonnes of total storage capacity this year. This will create food buffers in the country and combat unsustainable food imports. AFEX has identified opportunities to create value within the agricultural value chain by leveraging the Ministry of Agriculture's existing facilities, as well as additional facilities from the private sector. AFEX is also developing best practices for the storage and handling of commodities, and will manage and operate warehouses located in major commodity markets and production sites across Nigeria. AFEX is implementing the electronic warehouse receipt system in its warehouses as a building block to creating a vibrant commodity exchange in Nigeria.

TXF: How important are warehousing systems in efforts to boost agricultural finance and physical trading? How much can be achieved without large-scale reform in warehouse receipt laws and regulations?

TE: Warehousing and collateral management systems are critical to the success of commodities exchanges. The warehouse receipt itself is the security instrument traded on the exchange, representing the underlying commodities stored in exchange-accredited warehouses. Receipts are issued by a collateral manager, who guarantees delivery of the quality and quantity of product on the issued receipt, and provides value-added services such as cleaning, fumigation, bagging, and ultimately preparing the product for trade.

The basic function of an exchange is to ensure settlement by acting as a counterparty to buyers and sellers. Without secure storage and warehouse receipts with integrity, this will never happen.

The other key ingredient to faster, more inclusive economic growth for Africa is greater intra-African trade. Regional trade within Africa includes a higher proportion of manufactured and value-added goods. More regional trade within Africa can help increase employment and local purchasing power.

These capabilities are also central to financing because they not only enable efficient transfer of the receipt but also use of that receipt for collateral – to secure lending from banks. Banks will only lend against that collateral if it can be proven to be secure and not vulnerable to side-selling, theft, forgery, etc. Thus, the entire warehousing and collateral management system must be secure and reliable if the exchange is to function not just as a hub of physical trading, but also as a platform for commodity finance.

Current warehouse receipt legislation combines several elements of contract and financial instrument laws into one piece of legislation, aiming to legitimise the warehouse receipt as a document acceptable by the court for adjudication or dispute resolution. At AFEX, we tend to follow the South African model – currently the only model for a commercially viable exchange in Africa – where there is a third-party providing quality and quantity guarantees, as well as liability protection should the stored product deteriorate or be unavailable for settlement.

Business cannot wait for everything to be perfect before we act. It is not feasible to wait for warehouse legislation to be enacted that would cover all warehouses in a given country – warehouses of various sizes, types and 'state of repair'. We recommend a pilot project to demonstrate the advantages of 'secure' and well-managed warehouses, and using that experience as an incentive for warehousing to be improved. We believe that this will pave the way for the introduction of national, and possibly even regional, legislation.

TXF: On the road to implementing your exchanges' vision, how do you see the interplay between national interests and regional strategies, cooperation and competition between private initiatives, government interests and donor-driven efforts?

TE: We absolutely see an increased need for all players across the value chain to work together to get the exchanges running, and create an efficient market system that adds value to all its stakeholders, inclusive of farmers/producers. An efficient agriculture sector – which produces value-added goods for domestic consumption – is a critical component of African growth and serves the interests of the entire continent. It should not be seen as the sole responsibility of any group, whether that is businesses, governments, market participants, or development partners. As I have said before: if Africa fails, we all fail. We cannot afford to let the agriculture sector languish, given its potential to create jobs and address high unemployment, fill the supply-demand gaps that exist across the continent, and create social wealth that can help us solve so many persistent health and welfare challenges.

Economies of scale are particularly relevant in the exchange environment, and we believe regional exchanges will benefit each individual country far more than a series of smaller, less liquid national exchanges. Regional exchanges can accommodate higher volumes of product, a higher number of market participants, and greater scale in financing, given the larger scale of regional operations. The broader regional view will not only uplift the individual economies of each country, but through inter-regional trade will also serve the food security objectives of the region by facilitating the flow of agricultural products from surplus areas to deficit areas.

Governments in particular need to create enabling environments for private capital and skill to set up or revamp exchanges across Africa, and run them in the most equitable manner. And government has a regulatory function to play to manage the interest of the larger society and the parties to transactions. But business must be an equal partner in driving reform, leading the way by creating opportunity, jobs, and wealth, which will demonstrate the potential rewards of policy reform and pressure governments to act for the benefit of all Africans. ■

*Tony Elumelu has been responsible for creating businesses across Africa, in sectors critical to the continent's economic development. He is chairman of Nigeria-based investment company Heirs Holdings and conglomerate Transcorp. He is also founder of The Tony Elumelu Foundation, a philanthropic organisation that supports entrepreneurship across Africa.

Traders – the strongest link

The love affair between banks and traders is sometimes resented by producers, who struggle to access bank finance directly. But traders are the arteries and veins of agricultural finance, helping money flow right across the value chain, adding value with processing plants, and supporting smallholders with technical assistance.

Trickle-down effect

Bank financing "trickles down" to smallholders through traders, who often tap pre-export financing to pay their suppliers, notes Hans Bogaard, head of agribusiness at Rabo Development.

Traders are also helping modernise small-hold farming and providing a link in the value chain. "I think that's the best guarantee for the future," he says. "Because these value chains need to be better organised."

Like most international banks, ING does not have a wide presence on the ground in Africa so is cautious about directly lending to individual farmers says Geert Bierman, director of commodity finance. Traders however are one channel through which international banks can help money flow to smallholder producers.

ING is, for example, part of a club deal with two other banks in Africa, focused on sustainably grown coffee beans. ING and its partners lend to the trader, which onlends to producers. "By having a trader financing a wide portfolio of farmers, the risk is mitigated," he says.

And in markets such as Brazil, where agricultural and commodity markets are sophisticated and well-regulated, ING sometimes finds itself competing head to

Soft commodity traders help money get to where it's most needed along agricultural value chains.

Jacob Mwale, Grain Traders Association of Zambia: "Small and mid-sized commodity traders have long been overlooked by banks, which are only now starting to appreciate the vital role they play in agricultural value chains. It was considered we already had money – we didn't need any help."

head with traders to provide finance. "That makes financing a lot cheaper in those countries," says Bierman.

Hands-on help

As well as providing financial assistance to farmers by buying their produce and sometimes supplying them with inputs, traders help small-scale farmers become more efficient in their farming methods.

Some green coffee traders have more agronomists on their payroll than traders these days, says Bierman. "That is partly because it's the right thing to do, and partly to secure good quality of coffee, cocoa or cotton when the market is asking for more traceable products."

"Our work with farmers starts with training in good agricultural practices that usually takes them to one of the internationally recognised certification schemes," says David Rosenberg at Ecom Agroindustrial Corporation.

"Roughly a quarter of our sales are now under one of the certification schemes, and we reach more than 250,000 farmers around the world with our agronomy services," he says. "With that as a basis and a track record, then we can provide access to inputs and credit."

"We do this not out of charity, but out of shared interest," he says. When farmers produce more and better produce, Ecom has more and better product to sell to its clients.

Added value

Traders also add value in emerging markets by investing in processing and packaging plants.

Olam International announced in May 2014 it would add to its existing string of processing facilities across the world with a $61 million cocoa processing plant

Sustainability

ING officially integrated sustainability into its commercial strategy around three years ago. Although the bank had already implemented robust social and environmental risk management policies, this was "more directed at preventing harm," says head of sustainable lending Leonie Schreve.

Now, ING actively looks for positives, trying to identify clients that have an outstanding sustainability performance and that go the extra mile in terms of meeting international certification schemes or sourcing from smallholders. The bank's sustainable lending team looks closely at all deals as they come in and opens a dialogue with clients to see if there are any ways it can help make their transactions more sustainable.

Clients have responded well and are keen to share the efforts they are making, she says. Sustainability is of course an evolving concept. "What is considered sustainable today may not be labelled sustainable in five years' time."

Credit committees are also starting to take sustainability into account. "We still need to get our money back, but if a decent deal is proposed that has the additional benefit of helping people in the developing world, it is a plus in the decision process," says Geert Bierman, director of commodity finance at ING.

"Companies who work with a longer-term view of things tend to be less risky," he explains. "And so a good, decently run company with an eye on the environment and the world around them should have a lower risk profile, and lower pricing."

Meeting sustainable criteria also helps banks get organisations like the International Finance Corporation (IFC) on board with guarantees or co-financing that also reduces risk.

in Indonesia.

The facility will produce cocoa butter, cocoa cake and cocoa powders, sourcing mostly from 32,000 farmers across Indonesia as well as from a plantation on Seram Island the company acquired last year. Beans will also be supplied from Olam's farm-gate networks in Africa.

Ecom also has coffee wet mills in Uganda and dry mills in Kenya and Tanzania, as well as cocoa processing in Ivory Coast, Ghana, Nigeria and Cameroon.

An uneven playing field

Big traders tend to establish a presence on the edges of a continent first, for example setting up operations in Africa in Ghana and Kenya to begin with. They are extending their reach though, sourcing coffee, for example, directly from one-acre farmers in central Africa, says Bierman.

Smaller traders however usually lack the logistics to follow this example, so tend to source from ports at a lower margin. "It is harder for smaller traders to get a piece of the pie," unless they differentiate themselves by specialising in niche crops or ethically stamped produce, he says.

Small and mid-sized commodity traders have long been overlooked by banks, which are only now starting to appreciate the vital role they play in agricultural value chains, according to Jacob Mwale, executive director of the Grain Traders Association of Zambia, which brings together 106 traders. "It was considered we already had money – we didn't need any help."

Traders support small producers not only by sourcing from them but often by financing their purchase of inputs like fertilisers and seeds, he says.

They face challenges of their own though. Bank financing is too expensive – a cost that smaller traders have no choice but to partly pass on to farmers.

Government intervention is another risk that restricts their ability to do business. Uncertainty over the Zambian government's participation in the market on the buying and selling of maize, for example, makes it difficult for Zambia to fulfil its potential as a major regional exporter, he says. ■

Value-added improves prospects for Pacific Islands agri sector

The agri sector in many Pacific Islands is changing, as more value-added takes place. We take a closer look at developments in Papua New Guinea (PNG).

Agriculture forms the backbone of many economies in the Pacific Islands. Despite their geographic remoteness, a handful of islands are quietly building burgeoning export industries in commodities such as cocoa, coffee and sugar and, in the case of Papua New Guinea (PNG), a value-added tuna canning industry.

Resource-rich PNG is the region's star draw. Although some traders and multinationals have historically viewed its shaky sovereign rating and high crime rates with trepidation, this is changing.

"We've seen a number of companies enter the market recently," says Gareth Coleman, head of trade and supply chain, Papua New Guinea, at ANZ in Port Moresby. Traders and multinational companies are seeing in PNG a "tremendous opportunity to grow quite quickly".

Nestle and Coke already have operations in PNG. Commodity trader ED&F Man has a well-established coffee trading business, Olam has trading operations in both coffee and cocoa and Ecom Agroindustrial is active as the sole offtaker of a local coffee trader.

Fisheries industry adds value

One industry where PNG shines is fish processing, says Coleman. With a large exclusive zone in the central western Pacific region – source of 30% of the world's tuna catch – PNG has long viewed fishing as an important revenue source.

But government 'value-added' initiatives have in the past five years supported the development of a thriving tuna loining and canning industry, bringing thousands of jobs to an island whose tuna catch would previously be shipped to Thailand or the Philippines for processing.

PNG now has a handful of large canneries, including one that opened last year

Gareth Coleman at ANZ: "When we're providing this sort of financing, we do so on the basis of the product having already been sold. And the company that we're providing the financing to has a successful track record of executing these sales orders. What gives us comfort is that there are orders in place."

PNG concentrates on core agri products

Coffee, cocoa, oil palm/kernels and coconuts make up more than 90% of PNG's agriculture exports by value. Arabica coffee is its most important crop, with more than 250,000 household farmers accounting for 70% of production. Cocoa production is once again increasing, having faced steady decline since the mid-1970s, as estates replant with higher-yielding hybrids. In only 20 years, oil palm has become PNG's third biggest agricultural export by value and is viewed by some as a potential future rival for coffee.

and employs 2,000. At least two more that will employ similar numbers are well under development.

Government stipulations that fishery operators fishing in PNG waters also invest in local canneries have helped, as has the EU's granting of customs-free status to PNG canned tuna, notes Coleman.

Pre-export financing on the up

PNG is also a significant producer of cocoa and coffee, which ANZ supports through pre-export finance transactions. Funding against existing orders of sale is considered a palatable risk by the bank, which now aims to expand the limits it has in place for companies already trading in this space, says Coleman.

From initially focusing on the subsidiaries of multinationals, ANZ has over the past 18 months also started extending pre-export finance to nationally-owned companies that may not have big parent-company balance sheets but have a proven history.

"When we're providing this sort of financing, we do so on the basis of the product having already been sold. And the company that we're providing the financing to has a successful track record of executing these sales orders," says Coleman. "What gives us comfort is that there are orders in place."

ANZ earlier this year provided its first pre-export finance facility in the Solomon Islands, to a small Asia-based cocoa trading company. As well as giving the trader access to finance that might not otherwise be available, the facility allows it to borrow in US dollars at a lower interest rate than if it borrowed in local currency, says Coleman.

The bank also provides pre-export finance for coffee growers in Timor – again, against confirmed orders – and for sugar in Fiji, where the nation's entire production is exported via a single body, the Fiji Sugar Corporation.

Smallholders still struggle

Smallholders in Pacific Islands face similar challenges to those in Africa and the Caribbean. Ninety seven percent of PNG's land, for example, is held on a 'customary' basis by clans or tribes and is therefore untitled. This ambiguity creates challenges for banks, which cannot use land as security to finance farmers directly, notes Coleman.

But while microfinance remains at an "early stage" in PNG, organisations like National Development Bank "do have an appetite to go a little deeper in terms of providing grower loans," he notes. The central bank also launched early last year a microfinance project that targets both urban and agricultural customers.

The variable size of PNG's coffee and cocoa production also introduces a risk to lenders, with many smallholders producing only as much as they need to cover household expenses, rather than trying to optimise income. When the government introduced free education in the early 2000s, for example, production dipped suddenly as smallholders needed to earn less money. ■

Agriculture gets its Act together

Governments need to provide a legal framework for agriculture that supports farmers and traders but also gives banks confidence to lend.

Governments in African, Caribbean and Pacific countries have a huge responsibility to support agriculture, which in many cases employs more than half the population and is a foundation for the economy.

The legislative and regulatory environments in many emerging countries remain, however, among the biggest concerns banks have about financing agriculture and soft commodities there. Even where rules are in place, enforcement is sometimes a different issue. And with land ownership in many countries either ambiguous or non-existent, the concept of taking collateral becomes problematic.

Progress is certainly being made though, with a careful balancing act underway in many countries. While some countries such as Zambia or Nigeria seek to support local farmers with anything from guaranteed crop prices to import bans, others such as Ethiopia or Kenya are trying to attract banks with sophisticated commodity exchanges underpinned by regulations that give substance to financing tools like warehouse receipts.

So which countries are leading the way in both supporting farmers and winning financiers' confidence, and what more could they do?

The lawyer's view

There are a number of steps that governments in emerging markets could take to help support their agricultural industries and stimulate bank lending, according to Nicholas Budd, retired partner and head of the trade finance group at White &

Governments could also help provide more stability to farmers by setting up government-subsidised crop insurance programmes, underwritten by the private sector. These products would cover farmers against a range of risks such as drought, flood and loss of irrigation sources.

Case and consultant to the WTO.

Many of these focus on supporting tools like warehouse receipt financing, which help banks find a way to finance traders and farmers whose only collateral are the crops they produce.

Setting up a government-regulated commodities exchange that allowed for the trading of futures as well as spot contracts would inject transparency and liquidity into the market, as well as providing hedging possibilities, he says.

Allowing members of the exchange to offer financing to customers would also create more competition for banks that currently provide secured working capital loans to traders and other players.

To help facilitate the development of warehouse receipt finance, governments should establish a network of warehouses that are regulated and licensed by either the government or the commodity exchange, Budd advises. These would have to meet minimum standards in terms of regular inspections and financial management.

Laws should also be adopted governing negotiable and non-negotiable warehouse receipts. This would make it easier to pass on the title of goods and for the bank holding warehouse receipts as collateral to enforce its rights.

"The country that is probably the most famous in developing countries for their adoption of legislation regarding commodity exchanges is Ethiopia," he says. "It has its critics and its supporters. But it's a vigorous and very heavily government-sponsored effort that has achieved some level of activity almost overnight."

Governments should also look at adopting a new law to allow the creation of security rights over future and growing crops. "The real pioneer of that is Brazil, with its CPRs," he says.

Elsewhere, creating a central bank loan discounting mechanism would encourage international banks to lend to local banks, which could use that money to provide short-term, self-liquidating, secured loans to finance agricultural commodities.

Relaxing banks' reserve and capital requirements for some structured assets in the short-term trade and agriculture sectors would also allow more money to flow, he says.

Governments could also help provide more stability to farmers by setting up government-subsidised crop insurance programmes, underwritten by the private sector. These products would cover farmers against a range of risks such as drought, flood and loss of irrigation sources, Budd says.

The banker's view

"The legal system in a country needs to be predictable. People need to know what their contract is worth," says Geert Bierman, director of commodity finance at ING.

This limits, for example, ING's participation in warehouse receipt finance to "very well regulated" countries like Vietnam. "In a lot of countries, the legal system is not as developed as you want," he says. "Therefore, taking security is not always possible."

"If governments are committed to getting the agricultural industry to grow, it is imperative that they supply a solid framework and policy to facilitate bankable security to the private sector," says Zhann Meyer, Africa head, global commodity finance at Nedbank Capital.

"A lack of legislative framework and consistently applied agricultural policy scare investors," he says. "Banks also shy away if there's no certainty in terms of borders being closed or opened for the import or export of commodities. Inconsistency in terms of import tariffs between seasons also concerns us because it makes re-selling of the commodity in a pre-identified market difficult."

In Kenya, "the government is doing its best to make sure the industry is stimulated," Meyer says. "In terms of infrastructure and storage and the creation of markets, Kenya's quite possibly at the forefront of opening the next exchange for soft commodities in Nairobi. And that's crucial for free trade."

Mozambique's decision to offer free long-term land leases has attracted hundreds of South African farmers to relocate there, says Meyer. This is partly because of uncertainty about South Africa's land reform programme, but also because Mozambique offers excellent soil, weather and access to ports.

Nigeria's ministry of agriculture is also making great strides at bringing agriculture back after decades of the over-reliance on crude oil. Import bans on rice, plus investment in rice processing plants in the country are encouraging it to become more self-sufficient, says Meyer.

And finally Ghana. The annual Ghana Cocoa Board pre-export financing transaction is oversubscribed by banks every year. This is "because banks realise that it shows governance, it shows control, it shows administrative capability," says Meyer. "Those kind of things help towards building a reputation." ■

Zhann Meyer, Nedbank Capital: "In terms of infrastructure and storage and the creation of markets, Kenya's quite possibly at the forefront of opening the next exchange for soft commodities in Nairobi. And that's crucial for free trade."

Livestock – more than a commodity

Pioneering projects are helping livestock farmers and traders access finance and gain a share of growing export markets.

Value chains like livestock and dairy face a unique set of challenges, giving them a reputation as being higher risk than those for soft commodities like grains.

Innovative schemes are helping overcome these challenges though – identifying weak points in the value chain and supporting them with cash, infrastructure and education. This is already improving the livelihood of small farmers and traders as industries across Africa develop into thriving export markets.

A living bank

The main challenge for livestock systems is that, once butchered the product becomes very perishable, says Jo Cadilhon, senior agricultural economist at the International Livestock Research Institute (ILRI).

Unlike crops like maize or rice, which can be kept for years if stored correctly, a piece of meat or a litre of milk needs to get to market very quickly. This also requires investment in infrastructure like chilling plants.

Additionally, livestock is "not just a product you consume – it is part of a social, cultural and economic system," he points out.

Animals have a value to rural commu-

Animals have a value to rural communities beyond their market price. Animals produce dung for fertiliser, they play a key role in many religious or cultural celebrations, and they work as a live bank – something a smallholder can sell when he needs cash.

nities beyond their market price, meaning smallholders are sometimes reluctant to sell, he says. Animals produce dung for fertiliser, they play a key role in many religious or cultural celebrations, and they work as a "live bank" – something a smallholder can sell when he needs cash for his child's education or a family wedding.

"That's why we call it livestock," Cadilhon says. "It's actually capital – a live asset."

Traders in Swaziland tap finance

ILRI started work last year on an initiative to support the beef value chain in Swaziland. Funded by the International Fund for Agricultural Development (IFAD), the three-year scheme will offer six-month loans to rural traders, who will use the money to buy cattle and pay fatteners to prepare them for slaughter.

"The problem in developing countries is that traders, and often also farmers, don't have collateral and often don't own the land they are working on," says Nadhem Mtimet, agricultural economist – policy, trade and value chains at ILRI.

The loans will be channelled through a bank or microfinance institute and a number have already expressed interest in participating. The idea is that once they have experience of lending to traders with the project money, they will gain confidence to lend with their own money when the project ends.

The initiative aims to connect players in the value chain and improve livelihoods for traders as well as smallholders who either work in dry, remote locations or who do not have capital.

Partners in the project also include Swaziland Ministry of Agriculture, the Swaziland Water and Agricultural Development Enterprise (SWADE) and Swaziland's Microfinance Unit.

Namibia targets the EU with beef

The Namibia Meat Board has "developed a very good export supply chain for packaged meat ready to be sold in European supermarkets," says Cadilhon.

Seeking to leverage its strong trade ties with the EU through the EU-Africa-Caribbean-Pacific programme, the government decided to focus on its beef industry.

Together with the private sector, it set up a system under which smallholders bring cattle to government-approved feeding and slaughter houses that guarantee the health of the animal.

Because of this, "they are health and safety compliant, they are animal-welfare compliant and they have infrastructure to finish off their cattle," he says.

According to Meat Board figures,

Lower risk than crops

Livestock financing gets a poor rap but can actually be lower risk than soft commodities, according to Francois Visagie, head of structured trade and commodity finance at Barclays Africa. "There's a huge move (among banks) towards not only looking at grains," he says. "What was groundbreaking ten years ago is now vanilla finance. The ones that get their feet to work now will be the ones that have it easier going forward."

Although live animals are vulnerable to disease and theft, a calf has an immediate value as an investment, which grows as it matures and is prepared for market, he says. In contrast, crops have no value at all until a number of factors come into play. "You're basically putting your money in the ground and praying for rain."

Banks can also insure against livestock disease, as long as they are sourcing from a large enough farmer or trader rather than a smallholder. This is because insurance is typically only available from a minimum value.


Cattle in Kenya (courtesy of ILRI)

Namibia exported 9,500 tonnes of beef to the UK, Finland, Denmark and Norway last year.

Somalia re-exports live animals

Somalia is another example of an African country taking the initiative to develop a thriving export market, this time for live animals rather than meat.

Historically a big supplier of goats and sheep to the Middle East, Somalia's livestock industry was struck in the late 1990s by an outbreak of the Rift Valley Fever disease, leading Saudi Arabia to ban imports from the country.

The government and private sector responded by setting up a quarantine station that checks the health of animals before shipping them to the port of Jeddah. The country is now exporting three million to four million head of sheep and goats per year from Berbera port, and has even become a re-export market, shipping animals that are brought in from landlocked Ethiopia as well as from northern Kenya.

"It's an interesting example of how the government is trying to help Somalian smallholders and livestock keepers improve the quality of animals so that they can get more income from livestock activities," says Mtimet. ■

Back to BASIX

Long-standing Indian microfinance institution, BASIX, is a model of learning through experience.

India's microfinance industry has been through the mill in recent years. One microfinance institution (MFI) that has also faced its share of problems – but has weathered them better than many – is BASIX.

Since it was formed in 1996 as a for-profit MFI, BASIX has provided credit to 1.05 million agricultural customers, disbursing $230 million with a repayment rate of 97%, according to managing director Arijit Dutta.

Its relative success lies in its collaborative and sub-sectoral approach, he says. BASIX focuses on strengthening value chains for a handful of key crops and partnering with organisations and companies that either introduce it to potential customers or help provide them with technical assistance, business development services, insurance or inputs like seeds.

BASIX has so far focused its attentions on rice, groundnuts, cotton, soya bean, vegetables and dairy, conducting extensive studies with each to identify areas where its intervention would benefit low-income producers.

"We try to understand what is the sub-sector, who are the players involved, how the different stakeholders contribute and what are their problems," says Dutta.

One initiative in which BASIX helped improve local livelihoods and safeguard essential infrastructure was in its support of the dairy sub-sector in Andhra Pradesh.

BASIX helped prevent the closure of the loss-making and under-used Wanaparthy milk-chilling plant by extending loans worth INR6.6 million ($75,000) for the purchase of buffaloes by 600 small dairy farmers, nearly a third of which were women. By October 2000, milk production at the plant had risen from 500 litres per day to 6,000, a local milk pouch packaging machine was installed and milk was sold locally for the first time in nearly two decades.

Since 2001, BASIX has also teamed up with private insurers to co-develop and market products like crop insurance.

This move was triggered by the release of a research report that claimed 23% of BASIX customers said their financial health had deteriorated since taking credit from

Arijit Dutta at BASIX: "We try to understand what is the sub-sector, who are the players involved, how the different stakeholders contribute and what are their problems."

it. The findings proved an important learning experience though, and helped BASIX hone its mission of not simply extending credit but supporting the overall livelihoods of rural communities, says Dutta.

It also launched more comprehensive technical assistance and business development services, helping customers through its so-called Comprehensive Programme of Livelihood Promotion, he says.

Still, not all its interventions have been successful. A partnership with PepsiCo related to the multinational's potato contract farming scheme in the state of Jharkland was abandoned in 2008, leaving BASIX with large volumes of unrecovered loans.

Farmers became angry about a number of issues, claiming that contracts were biased in favour of PepsiCo, which was sourcing from them to produce potato chips.

The US company had a destabilising effect on local farmers by seeming to vary its procurement standards depending on the availability of potatoes. It would, for example, sometimes accept lower-quality potatoes and then sell them back to the market for a higher price when supply was scarce, Dutta says. ■

Diversity of investment sources

One area where BASIX stands out from other microfinanciers is in its ability to attract a diverse and sustainable pool of investments. The MFI has tapped everything from Indian commercial banks to multilateral investors like the International Finance Corporation (IFC) and convertible loans. Indian central bank requirements that agricultural lending account for 18% of commercial banks' portfolios has also in recent years seen more Indian banks seeking to funnel money through BASIX to help them meet those targets, Dutta says. Unlike many MFIs, BASIX is regulated by the Reserve Bank of India as a non-bank financial institute.

Protection for a price – crop insurance takes root

Pilot projects are developing innovative new insurance products for farmers that help them improve their own economic stability and ultimately make them more bankable.

Despite having nearly 20% of the world's cultivated land, Africa's share of the global agricultural market measured by insurance premiums paid is smaller than 1%, according to Jean-Christophe Debar, director of the Foundation for World Agriculture and Rurality (FARM). Latin America is better "but still under-developed".

Morocco, Nigeria and Senegal have public insurance schemes that are provided as part of national agricultural policy, but very few other countries offer the same. And while private players like insurers, brokers, input suppliers and mobile phone companies have launched 10 to 15 pilot projects across Africa, this still represents a very small part of the total agricultural population, he says.

By providing income stability and a safety net if the weather fails, insurance can give farmers the confidence to invest more in their farms, says Debar. Paradoxically, it can also encourage them to take a little more risk – for example experimenting with a new crop or agricultural technique – which can ultimately boost their yields. With so many risk factors already facing them, farmers can understandably err on the side of caution, he notes.

Insured farmers get more credit

Insurance also makes farmers a better risk for financiers and this is starting to help them access credit.

Not just microfinance institutions (MFIs) but also banks are beginning to offer credit to farmers in east Kenya that are insured under solutions pioneered by the Syngenta Foundation for Sustainable Agriculture, according to Marco Ferroni, its executive director. Agricultural microfinance provider One Acre Fund has also been able to extend more credit because of using Syngenta Foundations rain-indexed crop insurance. "This is the next frontier," Ferroni says.

Farmers feel more comfortable taking credit from One Acre Fund and leveraging their farm business if their most uncontrolled variable – rainfall – is no longer such a risk, according to a spokeswoman for the fund, which serves over 180,000 farmers across East Africa. Also, "insuring our farmers en masse reduces the risk of our portfolio, allowing us to push our expansion and explore new products".

Using insurance has also made it easier for farmers in Mali's Coprocuma cooperative to access credit from banks and MFIs such as Soroyiriwaso and Sotobajo, according to its president, Ismaila Diakite.

Covering every angle

There are a number of different types of insurance available for farmers. The kind used depends on what the farmer wants insured, what risk he wants to insure it against, and how that risk – and its potential impact on him – are calculated.

Agricultural insurance tends to either protect a farmer's costs for buying inputs like seed, fertiliser or insecticide, or his final crop yield.

In an innovative example of farmer input insurance, the Syngenta Foundation has teamed up with a seed supplier from Zimbabwe called SeedCo. When a farmer buys a bag of maize seeds from SeedCo, the price includes a premium. This insures the cost of the seeds if there is insufficient rainfall during a 21-day window from the date of planting. Inside each bag is a card with a special code that the farmer sends by SMS to a given number on the day he opens the bag and plants the seeds. The insurance runs from that day.

Because the insurance product is offered through a mobile payment system, claims are paid within days. In many cases, the farmer then has a second chance to buy new inputs and plant again within the same harvest.

Agricultural insurance can also be based on the actual yields of a specific farm – as with the public scheme in place in Senegal – or based on an index.

Most pilot projects in Africa favour the index approach, as not having to visit individual farms in the event of a claim is much cheaper in terms of administration. It is also less open to fraud.

With an index scheme, data from satellites or on-the-ground weather stations are used in algorithms to predict whether farmers in a given region will likely have lost some or all of their crop. These predictions are based on historic average yields under a variety of weather conditions.

The Syngenta Foundation offers weather-index insurance products in Kenya and Rwanda and intends to soon roll them out in Tanzania and other countries. Because of the lower cost – and therefore lower premiums – index-based insurance is far more feasible than conventional insurance for smallholder farmers, says Ferroni. "The need for loss adjustment in the field would make it impossible to spread insurance on a massive scale to farmers because it is too expensive," he says.

One weakness of index-based products is basis risk. This is the risk that an index does not accurately reflect the actual experiences of farmers, either because of technical problems or because some farmers faced highly localised weather conditions that were not reflected in the index. "Suppose you have an insurance index which does not trigger when farmers do have a loss," says Debar. "The second year, you will not have a lot of farmers purchasing the insurance product again."

Within index-based insurance, products tend to rely on satellite data, on weather stations or a mix of both. The industry is generally moving more towards satellites, which are able to provide more location-specific data. The weather data gathered can be anything from rainfall or evaporation rates to wind or even hail.

Jean-Christophe Debar, Foundation for World Agriculture and Rurality: "By providing income stability and a safety net if the weather fails, insurance can give farmers the confidence to invest more in their farms. Paradoxically, it can also encourage them to take a little more risk – for example experimenting with a new crop or agricultural technique – which can ultimately boost their yields."

Finally, insurance schemes can be individual or collective. The latter type is often offered to cooperatives who all farm in the same region. The more farmers signed up to a scheme, the cheaper it tends to be.

The Canadian-sponsored System of Agriculture Financing and Insurance in Haiti (Syfaah) is this year piloting a collective index-based crop insurance programme for rice producers in Haiti's Artibonite valley. The insurance – which will be offered initially to 300 to 500 farmers – insures against natural and climatic risks such as hurricanes, flooding and plant disease, according to coordinator Jean-Yves Drolet.

Pricing is still too high

Insurance is no panacea though. Farming relies on multiple factors, all of which need to be in place. As Ferroni says: "If you have weather insurance but the wrong seeds for the altitude or ecology, the best of insurance will not help you."

Although insurers are trying to devise systems to bring agricultural insurance costs down, premiums remain too high for many farmers, according to Debar.

Crop insurance premiums in Africa can be as high as 10% – a heavy burden for farmers who are among the world's poorest, he says. This compares with around 5%-6% for combined price and yield insurance in the US, after deduction of government subsidies.

Developing an insurance system is certainly expensive, including the costs of setting up and distributing a scheme and accessing quality data. There needs therefore to be a careful balancing act between "having a price low enough for the farmers but big enough for the insurer," he says.

The average premium for Syngenta's products is 8% to 12% of the insured value, although with its seed input tie-up, the premium is part-paid by the input company. "This is a way to accelerate their gain in market share, so it's a fair deal," says Ferroni.

Insurance is very expensive for the producers who need it most, says Hans Bogaard, head of agribusiness at Rabo Development. If, for example, they have a drought once every five years, the premium starts at 20%. This is, of course, relative. Because most agriculture insurance products are based on the value of inputs, which are often roughly 20% of the crop value, "the insurance premium is 20% of 20% of your crop output."

After extensive research into weather and yield data, Syfaah is piloting its rice insurance in Haiti with a preliminary premium of just 3.8% of the crop value, says Drolet. This will cost farmers the equivalent of around $45 per hectare. Although Haiti may be perceived as a country prone to climatic risk like hurricanes, the lower part of the Artibonite valley is partially sheltered and the 3.8% premium reflects this.

The current premium does not however take into account additional costs, such as for re-insurance or administration, which Syfaah is temporarily shouldering itself. Once the programme is handed over to a Haitian public-private consortium, the premium could be raised to a more viable level that reflects all costs. Syfaah is how-

Obligatory insurance schemes, where farmers are not allowed to borrow from public institutions without also taking insurance – as found in India and Brazil – could be one solution.

ever in talks over whether Haiti's government and other international partners could part-subsidise the product.

Critical mass

Reaching critical mass would help insurance providers lower their distribution costs and therefore their premiums.

Although the number of farmers accessing insurance through pilot projects in Africa is growing, it is still tiny compared with the continent's huge farmer population, says Debar.

Obligatory insurance schemes, where farmers are not allowed to borrow from public institutions without also taking insurance – as found in India and Brazil – could be one solution, he says.

Coprocuma, a cooperative in Mali with more than 500,000 members, has made compulsory the use of rainfall index-based insurance to cover farmers' corn crop. Broker Planet Guarantee was able to cut the premium from XAF32,500 per hectare ($67) to XAF16,000 ($33) per hectare if Coprocuma was able to sign up at least 15,000 producers, according to Diakite, the cooperative's president.

The cooperative was alerted to the benefits of insurance after a disastrously dry planting season in 2011-2012, causing the loss of over 13,000 hectares of sesame and 3,251 hectares of corn. "We were left with nothing," says Diakite. "It caused all our own capital and investment to dry up. That's when we realised the impact of climate risk."

Syngenta Foundation products insured 200,000 farmers in two African countries last year and there are plans for a much wider roll-out "country by country at a growing rate, working with banks and MFIs in a more systematic way," says Ferroni.

Education is crucial

Given the myriad of small farms in sub-Saharan Africa, it will however take time to reach individual farmers and explain to them the benefits of insurance.

A lot of well-established small- to medium-sized (SME) farmers and processors have never used crop, weather or political insurance, "usually because they just are not aware that it's available," says Edward George, head of soft commodities research at Ecobank. "It's a question of education" – letting them know that it's available and why it's used.

Farmers may be reluctant to pay for something they have never used before, especially in countries where corruption and lack of trust are big issues. The idea of paying money which – assuming all goes well – you will never get back, can also seem counter-intuitive to producers who may be new to the whole concept of insurance.

Coprocuma however, says it was "easy" to persuade farmers of the benefit of taking insurance, especially given their bitter experience of wide-scale crop failure in 2011-2012. "Although illiterate, farmers are not fools," says Diakite.

Syfaah has taken a novel approach to education, producing a comic strip in Creole that explains how its insurance product works. Field agents will deliver 500 copies to farmers and, because of low adult literacy levels, sometimes to their children so that they can read it to their parents.

Comic strips were widely used in Haiti after the 2010 earthquake to spread information about cholera risks, for example, and farmers have responded well to Syfaah's initiative. For the pilot to work, "it's crucial to give proper information to farmers," says Drolet, noting that Syfaah needs in particular to make clear that the product is based on an index rather than individual yields.

Government support is needed

The development of mobile technology plus satellites and automated weather stations is accelerating and will help spread the use of agricultural insurance, says Debar. "I'm optimistic when I see all the progress being made."

However, one big factor holding back the spread of agricultural insurance is a lack of government support. To help agricultural insurance reach critical mass and become more affordable for farmers, countries in Africa and Latin America need more subsidised public insurance schemes, possibly supported by international organisations like the World Bank or IFAD, he says.

Of course, they should only back well-designed, viable products, "but I'm a bit sceptical about the possibility of reaching a large scale without some type of public support," he says. "There are still cases to be made to some governments in West Africa."

Pilot projects are already working hard to experiment with new insurance products and get farmers on board. Technology is helping bring costs down and make insurance easier to deliver. To move agricultural insurance to the next stage, governments now need to lend their weight. ■

Because the insurance product is offered through a mobile payment system, claims are paid within days. In many cases, the farmer then has a second chance to buy new inputs and plant again within the same harvest.

Syfaah system to be rolled out in LatAm and Africa

The System of Agriculture Financing and Insurance in Haiti (Syfaah), to help microfinance for smallholders, looks set to be rolled out in Latin America and Africa.

Haiti has found itself at the forefront of agricultural microfinance with an initiative that is shaking up misconceptions about the bankability of smallholder famers and will soon also be launched in Latin America (LAtAm) and Africa.

The System of Agriculture Financing and Insurance in Haiti (Syfaah) is a three-pronged initiative that helps smallholders improve their yields and manage their risks through a combination of small loans, insurance products and technical assistance, all of which are tailored to meet farmers' needs.

By the end of March this year, it had provided 490 million gourdes of credit to more than 6,300 producers across Western Haiti and its Artibonite region, smashing its own target to extend 150 million gourdes of loans to 3,000 producers.

Loans extended under the system were subject to a 30-day delinquency rate of just 7%, compared with a typical rate of at least 10% for other sectors in Haiti and of 14% for agricultural loans offered by credit unions outside Syfaah.

This data proves that agriculture can actually represent a lower-than-average risk to lenders, as long as credit is packaged properly with the right support, according to Sylvain Dufour, credit counsellor at Développement International Desjardins (DID).

It shows that "producers repay better than all other customers," he says. "I think this system is able to work everywhere."

Sponsored by Canada, where a similar system helped transform Quebec's agricultural sector fifty years ago, Syfaah brings together three institutions to offer the three components that Dufour says are key to its success.

The Inter-American Institute for Cooperation on Agriculture (IICA) is responsible for

Sylvain Dufour at Syfaah: "Employing agro-economists as credit officers means that lenders don't make the same mistakes as in the past. They understand the producers. They are able to adapt the product for what they need."

helping smallholders improve their farming methods, offering agricultural experts who advise smallholders and work alongside them at their farms.

DID is responsible for helping farmers access small loans. Since late 2012, it has worked with the local branch of Sogesol bank, credit union Federation des Caisses le Levier and microfinance institution ACME to develop five credit products that stretch across the value chain to finance everything from inputs to storage and processing.

Credit officers have a background in agro-economics, ensuring they understand the needs of farmers and manage financial products that are tailored around the agricultural calendar.

Financière Agricole du Québec Développement International (FADQDI) is responsible for developing and offering two layers of insurance products. The Fonds d'Assurance Prêt en Haïti (FAPAH) provides a partial guarantee to financial institutions lending to farmers under the scheme, and is also piloting an index-based crop insurance programme to cover farmers.

The interplay of these three associations is crucial to Syfaah's success in Haiti, says Dufour.

Having agricultural experts working with farmers encourages them to follow best practice, meaning that their yields improve and that lenders are more likely to be repaid.

"Employing agro-economists as credit officers means that lenders don't make the same mistakes as in the past – insisting, for example, that a farmer make monthly repayments rather than repayments that are timed to coincide with the sale of his produce. They understand the producers," says Dufour. "They are able to adapt the product for what they need."

Insurance meanwhile provides protection for farmers against the uncertainties of weather, which in turn reduces repayment risks for lenders. The second layer of protection for lenders also gives them the comfort to lend to a sector they were not comfortable with in the past.

Syfaah is now moving on to its second phase, which runs until 2018. It aims to extend the system nationwide, expand its workforce of technical and credit officers, and promote some credit officers to senior positions with higher loan disbursement targets.

It will also create an institution – ideally comprising both government and private-sector partners – that will implement the system once Canada's sponsorship ends. ■